

### Abstract of the Disclosure

An interpolator and method for high image resolution by interpolation with adaptive filtering of Bayer pattern color signals, and a digital image signal processor implementing the same. The digital image signal processor can  
5 generate interpolation data close to actual pixel data by applying a nonlinear low pass filter (LPF) that reflects the change rate of the data centered around a center pixel and the data of the center pixel, and by simultaneously applying a LPF, a band pass filter (BPF), and a high pass filter (HPF) having linear characteristics, and can generate interpolation data that reduces aliasing (at "edges") and  
10 emphasizes a high frequency component.